

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA – SEMESTER – I - EXAMINATION – SUMMER 2022

Subject Code: 619402**Date: 28/07/2022****Subject Name: Object Oriented Programming in Java****Time: 02:30 PM TO 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a) Do As Directed :** **07**
- 1) null is a keyword in java. (T/F) (With reason)
 - 2) It is not mandatory that a class must be abstract when a method is declared as abstract in java.(T/F] (With reason)
 - 3) String is primitive data type. (T/ F)
 - 4) If exception occurs in try block then finally block will be executed.(T/F) (With reason)
 - 5) _____ has static constants and abstract methods.
 - 6) What is the use of this keyword?
 - 7) What is a command line argument?
- (b) List and explain Java Buzzwords in detail.** **07**
- Q.2 (a) Explain :this, super, static, final ,finally, static and garbage collection** **07**
- (b) Explain hierarchical inheritance with example.** **07**
- OR**
- (b) Differentiate between constructor and method of class. Define method overloading and its purpose. Write a program to demonstrate the constructor overloading.** **07**
- Q.3 (a) What is package? How to create and import packages in java? Explain it with suitable example.** **07**
- (b) Define interface. How does it overcome the problem of java's multiple inheritance?** **07**
- OR**
- Q.3 (a) Differentiate: Abstract class vs Interface.** **07**
- (b) Why we need synchronization in thread? Explain with example.** **07**
- Q.4 (a) What is thread? Explain thread life cycle in detail with diagram.** **07**
- (b) Explain Character Stream and Byte Stream. Also write program to copy content of one file to another file with using command line arguments.** **07**
- OR**
- Q.4 (a) What is exception? Explain exception handling mechanism with try, catch and finally blocks. Give Suitable example of custom exception.** **07**
- (b) How can we access the private data members in another class? Explain with demo example.** **07**
- Q.5 (a) Explain Generics in java with demo program.** **07**
- (b) What is Varargs? How to overload varargs methods? Explain with demo example.** **07**
- OR**
- Q.5 (a) Write a program to illustrate the use of command line arguments. Also implement necessary exception handling.** **07**
- (b) Explain InputStream class, OutputStream class, Reader class and Writer class with suitable java code.** **07**
